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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/594,249

09/25/2006

Hajime Saito

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EXAMINER

GREEN, TRACIE Y

ART UNIT

PAPER NUMBER

2879

NOTIFICATION DATE

DELIVERY MODE

05/07/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No. 10/594,249	Applicant(s) SAITO ET AL.	
	Examiner TRACIE Y. GREEN	Art Unit 2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>09/25/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 3-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Justel et al. (US Patent 6,084,250) in view Doxsee et al. (US 2004/0159846)

Regarding Claims 1, Justel et al. (Justel, hereafter) teaches (Figure 1) a light-emitting device comprising a semiconductor excitation light source emitting blue-violet light (column 2, lines 60-63) and a solid material illuminant (2) having an absorbent for said blue-violet light (Column 1, lines 40-45).

Justel is silent regarding the absorbent containing Sm, wherein said solid material illuminant absorbs blue-violet light with said semiconductor excitation light

source by Sm contained in the absorbent and radiates light by inner shell transition of Sm (claim 1); and wherein said semiconductor excitation light source emitting blue-violet light is a semiconductor laser device having an active layer of an InGaN semiconductor (claim 3).

In the same field of endeavor, Doxsee et al. teaches the absorbent containing Sm,(Paragraph 11, lines 1-7) wherein said solid material illuminant absorbs blue-violet light (Paragraph 11, lines 8—11) with said semiconductor excitation light source by Sm contained in the absorbent and radiates light by inner shell transition of Sm; and wherein said semiconductor excitation light source emitting blue-violet light is a semiconductor laser device (Paragraph 3, lines 1-2 and Paragraph 30, lines 1-5) having an active layer of an InGaN semiconductor (Paragraph 30, lines 1-3) in order to provide a device which can extend the wavelength range of the LED and produce "bright" white light.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the light-emitting device of Justel with said solid material illuminant absorbs blue-violet light with said semiconductor excitation light source by Sm contained in the absorbent and radiates light by inner shell transition of Sm; and wherein said semiconductor excitation light source emitting blue-violet light is a semiconductor laser device having an active layer of an InGaN semiconductor in order to provide a device which can extend the wavelength range of the LED and produce "bright" white light as taught by Doxsee et al.

Regarding claim 4, Justel teaches wherein said solid material illuminant contains Sc, Y or a typical element as cations, and contains at least one of N, O and S as anions (Column 4, Table 2 and line 25-26).

Regarding claim 5, Justel teaches wherein said solid material illuminant contains both N and O as anions 6Column 4, lines 104)

Regarding claim 6, Justel teaches wherein said solid material illuminant contains at least one of nitrides of Ga, in and Al (Column 4, Table1, lines 17 or 23).

Regarding claim 7, Justel teaches, wherein said solid material illuminant contains at least one of oxides of Y, Si, Al and Zn. (Column 3, lines 18-21, 22-25, and 25-30)).

Regarding claim 8, Justel teaches wherein said solid material illuminant contains a red phosphor having a peak wavelength in the range of 600 to 670 nm (Column 3, lines 35-38), a green phosphor having a peak wavelength in the range of 500 to 550 nm (Column 3, lines 49-51), and a blue phosphor having a peak wavelength in the range of 450 to 480 nm (Column 3, lines 41-43),

Regarding claim 9, Justel teaches wherein said red phosphor, said green phosphor and said blue phosphor contain rare earth elements (Column 4, table 1)

Regarding claim 10, Justel teaches wherein said solid material illuminant contains an n said red phosphor contains at least Sm or Eu. (Column 3, lines5 0-55)/

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable rejected under 35 U.S.C. 103(a) as being unpatentable over Justel et al. (US Patent 6,084,250) in view of Doxsee et al. (US 2004/0159846) as applied to claims 1 and 3, and in further view of Maede et al. (Japanese Patent application 20030-1101500)

Justel as modified by Morishita et al. teaches the lighting device set forth above (see rejection claim 1). Justel as modified by Morishita et al. Justel as modified by Morishita et al. is silent regarding/lacks wherein said blue-violet light has a peak wavelength in the range of 398 to 412 nm.

In the same field of endeavor, Maeda et al teaches in order to range of 398 to 412 nm(Paragraph 17, lines1-5) in order to provide a device which transmits sufficient color of blue and requires lower manufacturing costs.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the light-emitting device of Justel in order to range of 398 to 412 nm(Paragraph 17, lines1-5) in order to provide a device which transmits sufficient color of blue and requires lower manufacturing costs.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TRACIE Y. GREEN whose telephone number is (571)270-3104. The examiner can normally be reached on Monday-Thursday, 7:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on 571/272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tracie Y Green/
Examiner, Art Unit 2879

/Sikha Roy/
Primary Examiner, Art Unit 2879